

# Material Safety Data Sheet



Based on available information, not classified as hazardous according to criteria of NOHSC.  
Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail. Sulfur is not subject to the provisions of the Australian Dangerous Goods Code when it is transported in quantities of less than 400 kg per package, or when it has been formed to a specific shape (eg. prills, granules, pellets, pastilles or flakes).

## 1. Identification of the substance/preparation and of the company/undertaking

**Product Name:** SULPHUR - ALL GRADES

**Synonyms:** Sulfur, Sulphur flaked, Sulphur dusting, Sulphur latex, Sulphur lump, Sulphur powdered, Sulphur rubbermakers; Sulphur pastille.

**Supplier:** Orica Australia Pty Ltd

**ABN:** 004 117 828

**Street Address:** 1 Nicholson Street,  
Melbourne 3000  
Australia

**Telephone Number:** +61 3 9665 7111

**Facsimile:** +61 3 9665 7937

**Emergency Telephone:** 1 800 033 111 (ALL HOURS)

## 2. Composition/information on ingredients

**Product Description:** Used in chemical synthesis, rubber vulcanisation, detergents, petroleum refining, dyes, pharmaceuticals, explosives, pesticides, photography.

Other ingredient(s)	<10%	-
Sulfur 7704-34-9	>90%	Non hazardous

## 3. Hazards identification

**Poisons Schedule:** None allocated.

## 4. First-aid measures

**Inhalation:** Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

**Skin Contact:** If skin contact occurs, remove contaminated clothing and wash skin with running water. If irritation occurs seek medical advice.

**Eye Contact:** If in eyes, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

**Ingestion:** Rinse mouth with water. If swallowed, give a glass of water to drink. If vomiting occurs give further water. Seek medical advice.

**Notes to physician:** Treat symptomatically.

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## 5. Fire-fighting measures

- Specific Hazards:** Combustible solid. Avoid all ignition sources. May form flammable dust clouds in air. For precautions necessary refer to safety data sheet "Dust Explosion Hazards". Dust clouds are readily ignited in air by weak frictional sparks. Moving sulfur may generate static charge. Sulfur burns with a pale blue flame that may be difficult to see in daylight.
- Fire-fighting advice:** Can melt and flow in a fire situation. If safe to do so, remove containers from path of fire. Keep containers cool with water spray. On burning will emit toxic fumes, including those of oxides of sulfur. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.
- Suitable Extinguishing Media:** Water jets, water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

## 6. Accidental release measures

Shut off all possible sources of ignition. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in dust. Work up wind or increase ventilation. Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal. Use a spark-free shovel. If contamination of sewers or waterways has occurred advise local emergency services.

## 7. Handling and storage

- Handling advice:** Avoid skin and eye contact and breathing in dust. Avoid handling which leads to dust formation.
- Storage advice:** Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from sources of heat or ignition. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for spills.

## 8. Exposure controls/personal protection

### Occupational Exposure Limits:

No value assigned for this specific material by the National Occupational Health and Safety Commission. However, Exposure Standard(s) for particulates:

Nuisance dust: 8hr TWA = 10 mg/m<sup>3</sup>

As published by the National Occupational Health and Safety Commission.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

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## Engineering Control Measures:

Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Avoid generating and breathing in dusts. Use with local exhaust ventilation or while wearing dust mask. Keep containers closed when not in use.

## Personal Protective Equipment:

Orica Personal Protection Guide No. 1, 1998: E - OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, DUST MASK.

Wear overalls, safety glasses and impervious gloves. Avoid generating and inhaling dusts. If dust exists, wear dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

## 9. Physical and chemical properties

<b>Physical state:</b>	Solid
<b>Colour:</b>	Pale yellow
<b>Odour:</b>	Slight , Hydrogen sulfide
<b>Molecular Formula:</b>	S
<b>Solubility:</b>	Insoluble in water.
<b>Specific Gravity:</b>	2.1
<b>Flash Point (°C):</b>	207 (CC)
<b>Autoignition Temperature (°C):</b>	232
<b>Melting Point/Range (°C):</b>	113
<b>Boiling Point/Range (°C):</b>	445

## 10. Stability and reactivity

**Stability:** Incompatible with oxidising agents . Corrosive to damp steel . Reacts violently with finely divided metals , alkali metals , and mineral acids .

## 11. Toxicological information

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

<b>Ingestion:</b>	Swallowing can result in nausea, vomiting, diarrhoea and abdominal pain.
<b>Eye contact:</b>	May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.
<b>Skin contact:</b>	Contact with skin may result in irritation.
<b>Inhalation:</b>	Breathing in dust may result in respiratory irritation.

### Long Term Effects:

No information available for the product.

### Toxicological Data:

No LD50 data available for the product.

## 12. Ecotoxicological information

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Avoid contaminating waterways.

## 13. Disposal considerations

Refer to Waste Management Authority. Dispose of material through a licensed waste contractor.

## 14. Transport information

### Road and Rail Transport

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### Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea. Sulfur is not subject to the provisions of the International Maritime Dangerous Goods Code when it is transported in quantities of less than 400 kg per package, or when it has been formed to a specific shape (eg. prills, granules, pellets, pastilles or flakes).

### Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Sulfur is not subject to the provisions of the International Air Transport Association Dangerous Goods Regulations when it has been formed to a specific shape (eg. prills, granules, pellets, pastilles or flakes).

**UN No:** 1350  
**Class-primary:** 4.1 Flammable Solid  
**Packing Group:** III  
**Proper Shipping Name:** SULPHUR

## 15. Regulatory information

**Classification:** Based on available information, not classified as hazardous according to criteria of NOHSC.  
**Poisons Schedule:** None allocated.

This material is listed on the Australian Inventory of Chemical Substances (AICS).

## 16. Other information

This material safety data sheet has been prepared by SH&E Shared Services, Orica.

**Reason(s) for Issue:**

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Revised Primary MSDS  
Change to Transport Information

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Orica Limited cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Orica representative or Orica Limited at the contact details on page 1.

Orica Limited's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

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